UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/631,511	08/03/2000	Behnam S. Katibian	B67933 (044368/0372)	9161

20594 7590 02/25/2004

CHRISTOPHER J. ROURK
AKIN, GUMP, STRAUSS, HAUER & FELD, L.L.P.
P O BOX 688
DALLAS, TX 75313-0688

EXAMINER	
ALI, SYED J	

ART UNIT	PAPER NUMBER
2127	5

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/631,511	KATIBIAN ET AL.	
	Examiner	Art Unit	
	Syed J Ali	2127	

-- Th MAILING DATE of this communication appears on the cover she t with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 December 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to Amendment A, paper number 4, which was filed December 15, 2003. Claims 1-20 are presented for examination.

2. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.

Claim Rejections - 35 USC § 102

3. Claim 17 is rejected under 35 U.S.C. 102(e) as being anticipated by Kim (USPN 6,681,120).

As per claim 17, Kim discloses a system for processing audio data and video data in a wireless handset comprising:

an audio data processor receiving audio data and processing the audio data to generate audio service data (col. 1 line 47 - col. 2 line 2, "The microphone 103 and speaker 125 are connected through an audio signal processing section 108 to the microprocessor 112 of the device");

a video data processor receiving video data and processing the video data to generate video service data (col. 3 line 66 - col. 4 line 26, "A video camera 10 is connected through an image signal processing section 107 to the microprocessor 112");

a controller coupled to the audio data processor and the video data processor, the controller receiving the audio service data and the video service data and generating video

control data therefrom (Fig. 5, wherein the microprocessor acts as the controller to receive both audio and video data and routes the processed signal to the appropriate subsystem in the handset); and

wherein the audio data and the video data can be received over a same communications channel in a single transmission system (col. 1 line 47 - col. 2 line 2, "The cellphone also includes...a transmitting/receiving section"; col. 2 lines 10-45, "In addition to the audio data, the musical performance data from the internet may include images of the performers or the like, and/or the words of the musical performance. Other audio and visual data also may be downloaded from the internet").

Claim Rejections - 35 USC § 103

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Monroe (previously cited).

As per claim 1, Kim discloses a system for processing audio and video data for a wireless handset comprising:

an audio sampler receiving audio data and converting the audio data to digitally encoded audio data (col. 1 line 47 - col. 2 line 2, "The microphone 103 and speaker 125 are connected through an audio signal processing section 108 to the microprocessor 112 of the device");

a digital imager receiver receiving image data and converting the image data to digitally encoded image data (col. 3 line 66 - col. 4 line 26, "A video camera 10 is connected through an image signal processing section 107 to the microprocessor 112"); and

wherein the audio data and the video data can be received over a same communications channel in a single transmission system (col. 1 line 47 - col. 2 line 2, "The cellphone also includes...a transmitting/receiving section"; col. 2 lines 10-45, "In addition to the audio data, the musical performance data from the internet may include images of the performers or the like, and/or the words of the musical performance. Other audio and visual data also may be downloaded from the internet").

Monroe discloses the following limitations not shown by Kim, specifically a processor coupled to the audio sampler and the digital imager and receiving the digitally encoded audio data and the digitally encoded image data, the processor giving processing priority to one of the digitally encoded audio data and the digitally encoded image data (paragraph 0059, "The control processor 122 provides control parameters including the priority selection procedure and may be operator controll[ed] at keypad 126 or may be pre programmed").

It would have been obvious to one of ordinary skill in the art to combine Kim with Monroe since the disclosure of Kim, while providing a means of supporting multiple features on a single handset, fails to specify giving priority to one system over another. This could lead to a less than desirable situation, such as giving priority to whichever feature is currently being used. For instance, if the user is listening to an audio transmission, such as a musical performance, pushing the telephone features down in priority could lead to incoming telephone calls being dropped. By allowing the priority of each subsystem to be specified, it can be ensured that important features do not realize a drop-off in performance.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Monroe in view of Hoffbeck et al. (previously cited) (hereinafter Hoffbeck).

As per claim 2, Hoffbeck discloses the following limitations not shown by the modified Kim, specifically the system of claim 1 wherein the processor further comprises a controller providing control data to the audio sampler that causes the audio sampler to change the rate of audio sampling (col. 4 lines 5-30, "During active speech periods, speech encoder 103 produces full rate frames. During silent periods, speech encoder produces 1/8 rate frames. During transition periods between the talking periods and the silent periods, speech encoder 103 produces ½ or ¼ rate frames").

It would have been obvious to one of ordinary skill in the art to combine the modified Kim with Hoffbeck since varying the audio sampling rate based on current conditions can increase the available bandwidth. In particular, if multiple features are being used simultaneously, the microprocessor can take advantage of periods of silence or lower activity to increase the processing capacity available to lower priority tasks. Thus, the handset can reach an optimal level of utilization, by taking advantage of the microprocessor's full capacity to process signals.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Monroe in view of Jokomies et al. (previously cited) (hereinafter Jokomies).

As per claim 3, Jokomies discloses the following limitations not shown by the modified Kim, specifically the system of claim 1 wherein the processor further comprises a controller providing control data to the digital imager that causes the digital imager to change the rate of digital image data generation (col. 5 line 66 - col. 6 line 15, "On the basis of the result of the comparator 28, the controller 32 decides whether or not to change the coding parameters of the transmitting video codec. If the result from the comparator 28 is that the monitored received signal is within its preferred operating range then the controller 32 directs no changes in the coding parameters").

It would have been obvious to one of ordinary skill in the art to combine the modified Kim with Jokomies since under different circumstances, the rate of video encoding should be altered depending on the particular needs of the system. For example, if the audio data was set to a higher priority than the video data a less clear picture is required since it is at a lower priority. Therefore, setting a lower encoding rate would have been obvious since there is no need to clog the data stream with graphic rich video that is a low priority. Rather, the majority of the data stream should be given over to the audio data. Jokomies provides a way of changing the encoding parameters depending on the particular needs and capabilities of a system..

7. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Monroe in view of Rostoker et al. (previously cited) (hereinafter Rostoker).

As per claim 4, Rostoker discloses the following limitation not shown by the modified Kim, specifically the system of claim 1 wherein the processor further comprises a multiplex

system that controls the assembly of the digitally encoded audio data and the digitally encoded image data into a transmission data packet (col. 3 lines 13-15, "The video and audio transport packets are supplied to a multiplexer 24, which time division multiplexes the audio and video packets into a single data stream").

It would have been obvious to one of ordinary skill in the art to combine the modified Kim with Rostoker since the development of technology in cellular telephones that allows the transmission of both audio and image data has precipitated a need for finding ways of supporting larger data streams. By combining the data streams into a single multiplexed data packet, the transmission of both types of data can occur simultaneously, and make the process more efficient.

As per claim 5, Rostoker discloses the system of claim 1 wherein the processor further comprises a logical channel controller system that controls the assembly of the digitally encoded audio data and the digitally encoded image data into two or more logical channels (col. 4 lines 37-64, "A compressed signal containing both video [and] audio is supplied to an inverse transport processor 52, which separates the packet headers from the packet data, sends the packet data containing video to a video buffer 54, sends the packet data containing audio to an audio buffer 56 and sends the packet headers to a control unit 58", wherein the inverse transport processor is the logical channel controller that separates the audio and video data into separate channels).

It would have been obvious to one of ordinary skill in the art to combine the modified Kim with Rostoker for reasons discussed above in reference to claim 4.

As per claim 6, Rostoker discloses the system of claim 1 wherein the processor further comprises a transmission protocol system that controls the placement of transmission protocol data in a transmission data packet (col. 3 lines 1-15, "A transport processor 16 divides the compressed video signal into packets of data and adds a packet header to each packet data", "An audio formatter 20 generates packet headers for the compressed audio signal", "The video and audio transport packets are supplied to a multiplexer 24, which time division multiplexes the audio and video packets into a single data stream", wherein the packet headers are generated based on the particular transmission protocol, which inherently must be known in order for the packets to be properly routed, encapsulated, and interpreted).

It would have been obvious to one of ordinary skill in the art to combine the modified Kim with Rostoker for reasons discussed above in reference to claim 4.

As per claim 7, Rostoker discloses the system of claim wherein the processor further comprises a data buffer system storing logical channel data for one or more logical channels and transmission buffer data (col. 4 lines 37-64, "A compressed signal containing both video [and] audio is supplied to an inverse transport processor 52, which separates the packet headers from the packet data, sends the packet data containing video to a video buffer 54, sends the packet data containing audio to an audio buffer 56 and sends the packet headers to a control unit 58").

It would have been obvious to one of ordinary skill in the art to combine the modified Kim with Rostoker for reasons discussed above in reference to claim 4.

8. Claims 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monroe in view of Kim.

As per claim 8, Monroe discloses a method for processing data at a wireless handset comprising:

receiving a priority designator (paragraph 0059, "The control processor 122 provides control parameters including the priority selection procedure and may be operator controll[ed] at keypad 126 or may be pre programmed");

determining whether the priority designator is for audio data or video data (paragraph 0048, "one system may have priority over another for data transmission because of reliability issues, whereas a second system may have priority for voice transmission because of cost issues", wherein it is earlier disclosed that one type of data transmission may be that of a camera or other image data);

processing audio data before processing video data if the priority designator is for audio data (paragraph 0048, "a second system may have priority for voice transmission because of cost issues"); and

processing video data before audio data if the priority designator is for video data (paragraph 0048, "one system may have priority over another for data transmission because of reliability issues", wherein one type of data transmission supported is that of digital images").

Kim discloses the following limitations not shown by Monroe, specifically wherein the audio data and the video data can be received over a same communications channel in a single transmission system (col. 1 line 47 - col. 2 line 2, "The cellphone also includes...a

transmitting/receiving section"; col. 2 lines 10-45, "In addition to the audio data, the musical performance data from the internet may include images of the performers or the like, and/or the words of the musical performance. Other audio and visual data also may be downloaded from the internet").

It would have been obvious to one of ordinary skill in the art to combine Monroe with Kim since the disclosure of Kim, while providing a means of supporting multiple features on a single handset, fails to specify giving priority to one system over another. This could lead to a less than desirable situation, such as giving priority to whichever feature is currently being used. For instance, if the user is listening to an audio transmission, such as a musical performance, pushing the telephone features down in priority could lead to incoming telephone calls being dropped. By allowing the priority of each subsystem to be specified, it can be ensured that important features do not realize a drop-off in performance..

As per claim 13, Monroe discloses the method of claim 8 further comprising:

determining whether a priority designator change has been received (paragraph 0059, "The control processor 122 provides control parameters including the priority selection procedure and may be operator controll[ed] at keypad 126", wherein a change in processing priority can be effected via the keypad); and

reversing the processing priority of the audio data and the video data (paragraph 0048, "one system may have priority over another for data transmission because of reliability issues, whereas a second system may have priority for voice transmission because of cost issues",

wherein the priority is changed between data types depending on either the preprogrammed conditions or the changes effected by the operator).

9. Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monroe in view of Kim in view of Matsuzaki et al. (previously cited) (hereinafter Matsuzaki).

As per claim 9, Matsuzaki discloses the following limitation not shown by the modified Monroe, specifically the method of claim 8 wherein processing the audio data before the video data if the priority designator is for audio data further comprises setting a multiplex table to an audio priority entry (col. 6 line 60 - col. 7 line 67, "The priority correlation table information comprises, as shown in Fig. 4, packet identifying information 35*a* for identifying each encoded bit stream 75 multiplexed for each packet in the information-source encoding section 31...and priority information 35*d* indicating priority of each packet and program", wherein many different types of media are supported, as suggested in the Abstract).

It would have been obvious to one of ordinary skill in the art to combine the modified Monroe with Matsuzaki since multiplexing a combination of multiple types of data streams together with priority information associated with the different data streams into a single transmission serves the purpose of streamlining all communication in addition to allowing the system to define different priorities to different types of data depending on the needs therein. This fits well within the disclosure of Monroe, as Monroe provides a way of defining priority among various types of data, but fails to account for the large amount of bandwidth required to transmit many different types of data. The combination thereof with Matsuzaki provides a way

of encapsulating all of this data within a packet, thus greatly increasing the efficiency of the process.

As per claim 11, Matsuzaki discloses the method of claim 8 wherein processing the video data before the audio data if the priority designator is for video data further comprises setting a multiplex table to a video priority entry (col. 6 line 60 - col. 7 line 67, "The priority correlation table information comprises, as shown in Fig. 4, packet identifying information 35*a* for identifying each encoded bit stream 75 multiplexed for each packet in the information-source encoding section 31...and priority information 35*d* indicating priority of each packet and program", wherein many different types of media are supported, as suggested in the Abstract).

It would have been obvious to one of ordinary skill in the art to combine the modified Monroe with Matsuzaki for reasons discussed above in reference to claim 9.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Monroe in view of Kim in view of Jokomies.

As per claim 10, Jokomies discloses the following limitation not shown by the modified Monroe, specifically the method of claim 8 wherein processing the audio data before the video data if the priority designator is for audio data further comprises setting a video encoder data rate (col. 5 line 66 - col. 6 line 15, "On the basis of the result of the comparator 28, the controller 32 decides whether or not to change the coding parameters of the transmitting video codec. If the

result from the comparator 28 is that the monitored received signal is within its preferred operating range then the controller 32 directs no changes in the coding parameters").

It would have been obvious to one of ordinary skill in the art to combine the modified Monroe with Jokomies since under different circumstances, the rate of video encoding should be altered depending on the particular needs of the system. For example, if the audio data was set to a higher priority than the video data, a less clear picture may be required since it is at a lower priority. Therefore, setting a lower encoding rate would have been obvious since there is no need to clog the data stream with graphic rich video that is a low priority. Rather, the majority of the data stream should be given over to the audio data. Jokomies provides a way of changing the encoding parameters depending on the particular needs and capabilities of a system.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Monroe in view of Kim in view of Hoffbeck.

As per claim 12, Hoffbeck discloses the following limitation not shown by Monroe, specifically the method of claim 8 wherein processing the video data before the audio data if the priority designator is for video data further comprises setting an audio sample rate (col. 4 lines 5-30, "During active speech periods, speech encoder 103 produces full rate frames. During silent periods, speech encoder produces 1/8 rate frames. During transition periods between the talking periods and the silent periods, speech encoder 103 produces ½ or ¼ rate frames").

It would have been obvious to one of ordinary skill in the art to combine Monroe with Hoffbeck since varying the rate of audio sampling during periods of activity and inactivity serves

the purposed of minimizing the amount of useless data included in the data stream. Furthermore, if an indication is given that video is of more importance the audio sampling rate can be reduced in order to increase the video encoding rate. This ensures that the data stream that is given the higher priority also has the higher quality reproduction at the handset.

12. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monroe in view of Kim in view of Rostoker.

As per claim 14, Rostoker discloses the following limitations not shown by the modified Monroe, specifically the method of claim 8 wherein processing audio data further comprises:

assembling a payload data field (col. 3 lines 1-15, "A transport processor 16 divides the compressed video signal into packets of data and adds a packet header to each packet data", wherein the payload data is essentially the data related to either the audio or video data, as suggested by Applicant's specification);

assembling a CRC data field using the payload data field (col. 3 lines 1-15, wherein it is well known in the art to include a CRC in the packet header associated with each data packet in order to reduce corruption and other common errors) (see definition of CRC in FOLDOC, http://wombat.doc.ic.ac.uk/foldoc); and

assembling a service data unit from the payload data field and the CRC data field (col. 3 lines 1-15, wherein the service data unit, i.e., data packet is comprised of payload data, i.e., audio and/or video data, and header information).

It would have been obvious to one of ordinary skill in the art to combine the modified Monroe with Rostoker since the development of technology in cellular telephones that allows the transmission of both audio and image data has precipitated a need for finding ways of supporting larger data streams. By combining the data streams into a single multiplexed data packet, the transmission of both types of data can occur simultaneously, and make the process more efficient. Furthermore, since cellular and wireless telephones are somewhat unreliable since data is easily lost through wireless networks, providing a CRC to ensure that no corruption has occurred within the data stream would be an obvious modification to protect the integrity of the handset in terms of both security and proper functioning of the handset.

As per claim 15, Rostoker discloses the method of claim 8 further comprising:

assembling an audio data unit from the processed audio data (col. 3 lines 1-15, "An audio formatter 20 generates packet headers for the compressed audio signal. An audio transport processor 22 divides the audio signal into packets of data and adds a packet header to each packet data");

assembling a video data unit from the processed video data (col. 3 lines 1-15, "A transport processor 16 divides the compressed video signal into packets of data and adds a packet header to each packet data"); and

assembling a transmission data unit from the audio data unit and the video data unit (col. 3 lines 1-15, "The video and audio transport packets are supplied to a multiplexer 24, which time division multiplexes the audio and video packets into a single data stream").

It would have been obvious to one of ordinary skill in the art to combine the modified Monroe with Rostoker for reasons discussed above in reference to claim 14.

As per claim 16, Rostoker discloses the method of claim 15 wherein assembling the transmission data unit from the audio data unit and the video data unit further comprises:

placing a flag data unit in a first sequence position and a last sequence position (col. 4 lines 37-64, "If the stream_ID indicates that compression rates and types are stored in the first few bytes of data, the control unit 58 extracts the compression and type from the packet data and stores them in a latch", wherein the stream_ID is essentially a flag indicating whether or not compression data exists within the stream);

placing a header data unit in a second sequence position (col. 3 lines 1-15, wherein header data exists for both the audio and video data packets, and a header must exist for the multiplexed data in order for it to know how to reach a destination)

placing the audio data unit and the video data unit in one or more sequence positions between the second sequence position and the last sequence position according to predetermined criteria (col. 3 lines 1-15, "The video and audio transport packets are supplied to a multiplexer 24, which time division multiplexes the audio and video packets into a single data stream", wherein the predetermined criteria is set by the multiplexer and is internal to the device such that it knows how to both multiplex and demultiplex the transmission).

It would have been obvious to one of ordinary skill in the art to combine the modified Monroe with Rostoker for reasons discussed above in reference to claim 14.

13. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Jokomies.

As per claim 18, Jokomies discloses the system of claim 17 wherein the controller further comprises a digital image rate controller generating control data to reduce the rate of digital image generation (col. 5 line 66 - col. 6 line 15, "On the basis of the result of the comparator 28, the controller 32 decides whether or not to change the coding parameters of the transmitting video codec. If the result from the comparator 28 is that the monitored received signal is within its preferred operating range then the controller 32 directs no changes in the coding parameters", wherein the rate of digital image generation is reduced in response to various factors, such as an unsatisfactory image generated at a higher rate).

It would have been obvious to one of ordinary skill in the art to combine Kim with Jokomies since under different circumstances, the rate of video encoding should be altered depending on the particular needs of the system. For example, if the audio data was set to a higher priority than the video data a less clear picture is required since it is at a lower priority. Therefore, setting a lower encoding rate would have been obvious since there is no need to clog the data stream with graphic rich video that is a low priority. Rather, the majority of the data stream should be given over to the audio data. Jokomies provides a way of changing the encoding parameters depending on the particular needs and capabilities of a system.

14. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Hoffbeck.

As per claim 19, Hoffbeck discloses the following limitations not shown by Kim, specifically the system of claim 17 wherein the controller further comprises an audio sample rate controller generating control data to reduce the rate of audio sampling (col. 4 lines 5-30, "During active speech periods, speech encoder 103 produces full rate frames. During silent periods, speech encoder produces 1/8 rate frames. During transition periods between the talking periods and the silent periods, speech encoder 103 produces ½ or ¼ rate frames", wherein the audio sampling rate is reduced during periods of silence, or transitional periods when voice compression does not require a high sampling rate).

It would have been obvious to one of ordinary skill in the art to combine Kim with Hoffbeck since varying the rate of audio sampling during periods of activity and inactivity serves the purposed of minimizing the amount of useless data included in the data stream. Furthermore, if an indication is given that video is of more importance the audio sampling rate can be reduced in order to increase the video encoding rate. This ensures that the data stream that is given the higher priority also has the higher quality reproduction at the handset.

15. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Rostoker.

As per claim 20, Rostoker discloses the following limitations not shown by Kim, specifically the system of claim 17 wherein the controller further comprises a framing system assembling the audio service data and the video service data into a transmission data frame (col.

3 lines 1-15, "The video and audio transport packets are supplied to a multiplexer 24, which time division multiplexes the audio and video packets into a single data stream").

It would have been obvious to one of ordinary skill in the art to combine Kim with Rostoker since the development of technology in cellular telephones that allows the transmission of both audio and image data has precipitated a need for finding ways of supporting larger data streams. By combining the data streams into a single multiplexed data packet, the transmission of both types of data can occur simultaneously, and make the process more efficient. Furthermore, since cellular and wireless telephones are somewhat unreliable since data is easily lost through wireless networks, providing a CRC to ensure that no corruption has occurred within the data stream would be an obvious modification to protect the integrity of the handset in terms of both security and proper functioning of the handset.

Response to Arguments

16. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new grounds of rejection.

Conclusion

17. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed J Ali whose telephone number is (703) 305-8106. The examiner can normally be reached on Mon-Fri 8-5:30, 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai T An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Syed Ali
February 20, 2004

MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100